REMARKS

Claims 16-56 added in this Preliminary Amendment correspond to claims 16-71 in the prior application, U.S. Serial No. 911,396, less the allowed claims 32-46 in the prior case. Because the claims added by this amendment have been numbered consecutively beginning with the number next following the highest numbered original claim in the prior application, for convenience the following list correlates claims 16-56 here with claims 16-71 in the prior case:

CLAIMS 16-56 IN THIS CASE	CLAIMS 16-71 IN PRIOR CASE
16	16
|	|
31	31
	32-46 Allowed in prior case
32	47
|	|
56	71

The Final Office Action in the prior application, U.S. Serial No. 06/911,396 rejected original claims 14, 16-31 and 47-50 (corresponding to present claims 14, 16-31 and 32-35) under Section 103 on Suste, U.S. 4,496,879; and rejected original claims 51-71 (corresponding to present claims 36-56) under Section 103 on Suste in view of Hardway, et al. U.S. 4,347,509.

Applicants respectfully traverse these prior grounds of rejection for the following reasons. With respect to the present claims 16-31 and 47-50, these claims are directed to either the unique double pulse addressing technique or the unique single pulse addressing technique of the present invention. In contrast, the Suste reference is cited with reference to Figure 1

and Col. 5, lines 15-20 from which the prior Office Action concludes:

> "It would be obvious to apply an X drive voltage pulse of an opposite polarity with respect to the Y driver voltage pulse (illustrated in Figure 2 at 32 and 34) to effect a cell voltage of 180 volts."

The cited Suste reference merely shows the well-known addressing technique for addressing a plasma panel which has nothing to do with the features recited in present claims 16-31 and 32-35. Suste does not disclose applying a high level pulse of opposite polarity after a high level of one polarity has been selected in order to discharge the cell and enter the information into the panel as defined in the single pulse addressing technique of the present invention, nor does Suste disclose applying a second high level pulse (XAP) to the address electrode after the end of the high level pulse of opposite polarity (YAP) to enable the controllable discharging of the address electrode in accordance with the present double pulse addressing technique. There is no description, suggestion or teaching in Suste to provide such recited features as in present claims 16-31 and 32-35.

Present claims 14 and 36-56 are directed to the energy efficient technique of driving display panels utilizing structure and a technique for obtaining energy recovery. Any combination of Suste and Hardway, et al. does not meet the combination of elements recited in present claims 14 and 36-56.

The prior Office Action suggested it would be obvious:

> "...to compensate for cell capacitance by coupling Suste's X address input 15 and Y address input 18 with inductive means in the manner that the Hardway, et al. reference uses transformer 80 of Figure 4."

It must be respectfully noted that neither Suste nor Hardway, et al. disclose, teach or suggest any structure or technique for obtaining energy recovery in a display panel driver.

The Patent Office suggestion to use Hardway, et al. transformer 80 does not provide any teaching, suggestion or description of energy recovery because diode 90 in Hardway, et al., Figure 4 inherently prevents energy recovery in the Hardway, et al. circuit. Note that current flow in that circuit can only go in one direction, i.e., from the power supply 84 and transformer 80 through diode 90 to the panel 92. Current cannot and does not flow back from the panel through diode 90 and into the power supply. Therefore, there is no energy recovery and therefore Hardway, et al. does not describe, teach or suggest the energy efficient method of driving display panels as recited in present claims 14 and 36-56. Secondly, the suggested combination of Hardway, et al. and Suste would also fail to meet these claims.

It must be noted that the present invention offers significant advantages in the display art. Particularly with reference to the energy efficient display panel driver aspect of the present invention as recited in claims 14 and 36-56, the significant advantages justify denoting this a pioneer invention. Most importantly, a plasma panel with an energy efficient sustainer of the present invention uses less power than a liquid crystal display incorporating the required backlighting. Accordingly, in portable laptop computers the significant advantages of the present invention enable the use of a high resolution plasma panel with less consumable power than a lower resolution liquid crystal display with required backlighting. Claims 14, and 16-56 are not disclosed, taught or

suggested by any combination of the references cited in the prior application or which were brought to the attention of the Patent Office in applicants' INFORMATION DISCLOSURE STATEMENT of September 4, 1987 in the prior application.

Enclosed with and accompanying this Preliminary Amendment are soft copies of the eight (8) sheets of formal drawings. The formal drawings will be filed upon the indication of allowable subject matter in this application.

This application with present claims 14, and 16-56 is in condition for allowance and such action is respectfully requested.

Respectfully submitted,

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